



Application No. 09/803,034

The attached Appendix includes a Substitute Specification (37 C.F.R. §1.125(b)(2)) and each rewritten claim (37 C.F.R. §1.121(c)(1)(ii)).

Prompt and favorable examination on the merits is respectfully requested.

Respectfully submitted,

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Attachments:

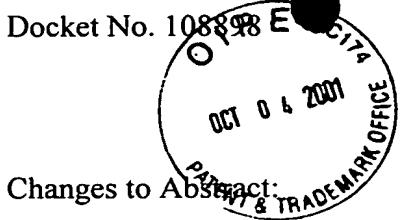
Substitute Abstract
Appendix
Substitute Specification
Marked-up copy of original application

Date: October 4, 2001

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Changes to Abstract:

Application No. 09/803,034

APPENDIX

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The following is a marked-up version of the amended Abstract.

The invention ~~to increase~~ increase the outgoing efficiency of light generated in an organic luminous layer of an organic electroluminescence element without decreasing the numerical aperture.

—A light-transmissive anode electrode layer-3, an organic luminous layer-4, and a light-reflective cathode layer 5-are provided ~~let exist~~ on the entire ~~whole~~ surface of one pixel region. On the anode layer-3, the organic luminous layer-4, and the cathode layer-5, slopes 62-64 are installed protruding from the anode layer 3-side to the cathode layer 5-side. By this, light ~~H~~ generated in the organic luminous layer-4 and irradiated in parallel to a cumulate surface of a cumulate body-8, is reflected by the slope 63 on the boundary between the organic luminous layer 4 and the cathode layer 5 and exists ~~let go out~~ toward the anode layer 3-side.

Changes to Title:

The following is a marked-up version of the amended title:

An organic electroluminescence element and its manufacturing method

ORGANIC ELECTRO-LUMINESCENCE ELEMENT

AND THE MANUFACTURING METHOD THEREOF

Changes to Specification:

A Substitute Specification is attached in accordance with 37 C.F.R. 1.125(b)(2).

Changes to Claims:

The following are marked-up versions of the amended claims:

1. (Amended) An organic electroluminescence element, comprising:

equipped with a cumulate body having a cathode layer, an anode layer, at least one or more organic thin film layer layers containing an organic luminous layer disposed placed between the cathode layer and the anode layer, an organic electroluminescence element characterized by the fact that the cathode layer and the anode layer defining have slopes.

2. (Amended) The organic electroluminescence element according to described in Claim 1, characterized by the fact that the slopes being are formed on the rim sides of a the pixel.

3. (Twice Amended) The organic electroluminescence element according to described in Claim 1, the slopes being disposed such that a characterized by the fact that the protruding height of the organic luminous layer by the slopes is larger than a the thickness of the organic luminous layer.

4. (Twice Amended) The organic electroluminescence element according to claim 1, the slopes being disposed such that a described in Claim 1 characterized by the fact that the protruding height of the organic luminous layer by the slopes is larger than a the total value of a the thickness of one of the anode layer and the cathode layer and a the thickness of the organic luminous layer.

5. (Twice Amended) The organic electroluminescence element according to claim 1, the slopes including multiple described in Claim 1 characterized by the fact that a plural number of the slopes that are formed evenly arranged on the surface.

6. (Twice Amended) The organic electroluminescence element according to claim 1, described in Claim 1 wherein the slopes being are formed by providing installing a projection, made of an insulating raw material, on a substrate forming the cumulate body.

7. (Twice Amended) The organic electroluminescence element according to claim 1, described in Claim 1 wherein the slopes being defined by forming projections on at least one of the anode and the cathode, the projections are formed by making the electrode layer formed on the substrate side forming the cumulate body in a shape having a projection corresponding to the slopes.

8. (Amended) A method of manufacturing the an organic electroluminescence element described in Claim 1, comprising:

a step of forming an insulating film on a substrate forming the cumulate body;
a step of forming a projection having slopes made of an insulating raw-
material on the part corresponding to the slopes on the substrate by patterning the insulating film;

a step of forming one of an anode layer and a cathode layer the electrode layers
on the substrate where the projection is formed;

a step of forming an organic luminous layer on-above the one of the anode
layer and the cathode electrode layer; and

a step of forming the other of the anode layer and the cathode electrode layer
on-above the organic luminous layer.

9. (Amended) The method of manufacturing the organic electroluminescence element according to described in Claim 8, the step of characterized by forming the projection through includes:

a step of forming a first insulating film that is made of a raw material on the
substrate;

a step of forming a second insulating film made of a different raw material that is different from the raw material of the first insulating film; and

a step of patterning the second insulating film.

10. (Amended) The A method of manufacturing the organic electroluminescence element described in Claim 1, further comprising:

_____ a step of forming one of the anode layer and a cathode electrode layers layer over on a substrate forming the cumulate body so that it is placed on the entire area and has a convex section on the part corresponding to the slopes in such a manner that one of the anode layer and the cathode layer has projections;

a step of forming an organic luminous layer on the electrode layer above the one of the anode layer and the cathode layer; and

a step of forming the other of the anode layer and the cathode electrode layer on above the organic luminous layer.

11. (Amended) The method of manufacturing the organic electroluminescence element according to described in Claim 10, wherein one of the anode layer and the cathode electrode layers layer being is a light-transmissive electrode layer, formed through a step of forming on the substrate a first thin film made of light transmissive, conductive material by the sputtering method;

_____ a step of forming on the first thin film a second thin film made of light transmissive, conductive material by forming a liquid coating containing a light transmissive material and then removing the solvent in this coating; and

_____ a step of forming a convex section by patterning the second thin film and then baking it.